#### ABC LABORATORIES, INC. EAST 4922 UNION AVENUE SPOKANE, WA 99219 509-534-0161



REPORT TO: Spokane County Dept. of Utilities

N. 811 Jefferson

Spokane, WA 99210

LAB NO: 34086-90

DATE: 10-19-90

SAMPLE DATE: OCTOBER

ATTN:

Bruce Austin

DESCRIPTION: Perform Volatile Organic Scan on sixteen submitted samples from the wells in the Colbert

Landfill area. Analyses performed by methods outlined in proposal of December 8th, 1988.

DETECTION LIMITS: 1 part per billion

ND: Not Detected

This document contains five pages.

Respectfully Submitted, ABC LABORATORIES, INC.

W.E. Burkhardt

President

**USEPA SF** 1414367

Spokane County Dept. of Utilities						
LAB #: 34086-90 NAME:	(b) (6)			(h) (c)		
MHI IL.				(b) (6)		
WELL #:	1073E-3	0273Č-3	1573E-1	0273P-3	0273P-3	147764 +
DATE:	10-17-90	10-18-90	10-17-90	10-18-90	10-19-90 Confirming	1473M-1 10-17-90
Chloroform 1,1-Dichloroethane 1,1-Dichloroethylene Trichloroethylene 1,1,1-Trichloroethane Tetrachloroethylene	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND ND ND	ND ND ND ND 93 ND	ND ND ND ND 102 ND	ND ND ND ND
Methylene Chloride	ND	ND	ND	ND	ND	ND ND
1 - Pentene	ND	ND	ND	ND	ND	ND
Cyclopentane	ND	ND	ND	ND	ND	ND ND
Trans 2-Hexene	NĎ	ND	ND	ND	ND	ND
Benzehe Tolungs	ND	ND	ND	ND	ND	ND
Toluene Ethylogy Millionedda	ND	NĎ	ND	ND	ND	ND
Ethylene Di Bromide	ND	ND	ND	ND	ND	ND
Ethyl Benžene	NĐ	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
0-xylene	ND	ND	ND	ND	NĎ	ND
P-xylene Cumons	ND	ND	NĎ	ND	ND	ND
Cumene 1. 0. 4. Trainwalk of D	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND	ND
P-cymene Chlorabassas	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	NĎ	ND
M-dichlorobenzene	ND	ND	ND	ND	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	NĐ	ND	NĎ	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	·ND	NĎ	ND	ND
Trans 1,2-Dichloroethylene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropene	ND	ND	ND	ND	ND	ND
Cis 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
Trans 1,3-Dichloropropylene	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
1,1,2,=richloroethane	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl Ether	ND	ND	ND	ND	ND	ND

Spokane County Dept. of Utilities LAB #: 34086-90							
NAME:	(b) (6)		(b) (6)				
WELL #:	1473M-1	0273E-2	1073E-2	1073E-2	00776 6		
DATE:	10-19-90	10-18-90		10-19-90	0273D-2 10-18-90	0373A-2	
	Confirming			Confirming	10-10-90	10-18-90	
Chloroform	ND	ND	ND	MP	***		
1,1-Dichloroethane	ND	NĎ	ND	ND ND	ND	ND	
1,1-Dichloroethylene	ND	ND	ND	ND	ND	ND	
Trichloroethylene	ND	ND	NĎ	ND	ND	ND	
1,1,1-Trichloroethane	8	ND	40	36	ND ND	ND	
Tetrachloroethylene	ND	NĎ	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND	ND	ND	ND	
1 - Pentene	ND	ND	ND	ND	ND	ND	
Cyclopentane	ND	ND	ND	ND	ND	ND	
Trans 2-Hexene	ND	NĎ	ND	ND	ND	ND ND	
Benzene	ND	ND	ND	ND	ND	ND ND	
Toluene	ND	ND	ND	ND	ND	ND ND	
Ethylene Di Bromide	ND	ND	ND	ND	ND	ND	
Ethyl Benzene	ND	ND	ND	NĎ	ND	ND	
M-xylene	ND	ND	ND	ND	ND	ND	
0-xylene	ND	ND	ND	ND	ND	ND	
P-xylene	ŊĐ	ND	ND	ND	ND	ND	
Cumene	ND	ND	ND	ND	ND	ND	
1,2,4-Trimethyl Benzene	ND	ND	ND	ND	ND .	ND	
P-cymene	ND	ND	ND	ND	ND	ND	
Chlorobenzene	ND	ND	ND	ND	ND	ND	
M-dichlorobenzene	ND	ND	ND	ND	ND	ND	
O-dichlorobenzene	ND	ND	ND	ND	ND	ND	
P-dichlorobenzene	ND	ND	ND	ND	ND	ND	
Methyl Ethyl Ketone Acetone	ND	ND	ND	ND	ND	ND	
Bromodichloromethane	ND	ND	ND	NĎ	ND	ND	
Bromoform	ND	ND	ND	ND	ND	ND	
Carbon Tetrachloride	ND	NĎ	ND	ND	ND	ND	
Dibromochloromethane	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	ND	ND	ND	ND	NĎ	ND	
Trans 1,2-Dichloroethane	ND	ND	ND	ND	NĎ	NĐ	
Trans 1,2-Dichloroethylene	ND NG	ND	ND	ND	ND	ND	
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	
Cis 1,3-Dichloropropylene	ON ND	ND	ND	ND	ND	ND	
Trans 1,3-Dichloropropylene	ND ND	ND ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	ND ND	ND ND	ND	ND	ND	ND	
1,1,2,-richloroethane	ND ND	ND ND	ND	ND	ND	ND	
2-Chloroethylvinyl Ether	ND ND	ND ND	ND	ND	ND	ND	
	110	ND	ND	ND	ND	ND	

Spokane County Dept. of Utilities						
LAB #: 34086-90 NAME:	(b) (6)					
WELL #:	14730-2	2373D-1	1173N-1	1573K-1	0373L-1	1573C-7
DATE:	10-17-90	10-17-90	10-18-90	10-19-90	10-18-90	10-17-90
Chloroform	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene		· ND	ND	ND	ND	ND
Trichloroethylene	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	NĎ	ND
Tetrachloroethylene Mathylana Chlorida	ND ND	ND ND	ND ND	ND	ND ND	ND
Methylene Chloride 1-Pentene	ND	ND	ND	ND ND	ND	ND ND
Cyclopentane	ND ND	ND	ND	ND	ND	ND ND
Trans 2-Hexene	ND	ND	ND	ND	NĎ	ND
Benzene	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND
Ethylene DiBromide	ND	ND	ND	ND	ND	NĎ
Ethyl Benzene	ND	ND	ND	ND	ND	ND
M-xylene	ND	ND	ND	ND	ND	ND
0-xylene	ND	ND	ND	ND	ND	ND
P-xylene	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethyl Benzene	NĎ	ND	ND	ND	ND	ND
P-cymene	ND	ND	NĐ	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
M-dichlorobenzene	ND	ND	ND	NĎ	ND	ND
O-dichlorobenzene	ND	ND	ND	ND	ND	ND
P-dichlorobenzene	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	NĎ	ND	ND
Acetone	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND ,	ND	ND	ND	ND
Dibromochloromethane	ND NO	ND	NĎ	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Trans 1,2-Dichloroethylene	ND ND	ND	ND ND	ND	ND	ND
1,2-Dichloropropane	ND ND	ND	ND	NĎ	ND	ND
Ciá 1,3-Dichloropropylene	ND ND	ND ND	ND ND	ND	ND	ND
Trans 1,3-Dichloropropylene 1,1,2,2-Tetrachloroethane	ND ND	ND ND	ND ND	ND	ND	ND
1,1,2,2-retracmoreetnane 1,1,2,-richloroethane	ND ND	ND ND	ND ND	ND	ND ND	ND ND
2-Chloroethylvinyl Ether	ND ND	ND	ND	ND ND	ND ND	ND ND
5 curor occurdi Attridi Errici	NU	иD	ND	ND	ND	ND

NAME	Spokane County Dept. of Utilitie	es			
MELL #: 1573C-14 10-11-90 10-12-90 10-15-90	LAB #: 34086+90 NAME:	(b) (6)			
Chloroform					
Chloroform ND	WELL #:				
1,1-Dichloroethane	DATE:	10-17-90	10-19-90	10-18-90	10-10-90
1,1 - Dichloraethylene					
Trichloroethylene ND	1 1 - Dichloroethulene	ND	ND	ND	
1,1,1-Trichloroethane	Trichloroethulene	ND	ND	ND	7.7
Tetrachloroethylene	1 1 1-Trichloroethane	ND	ND		
Methylene Chloride	Tetrachloroethylene	ND			
1-Pentene	Methylene Chloride	NĎ			4
Cyclopentane         ND         ND         ND         ND           Trans 2-Hexene         ND         ND         ND         ND         ND           Benzene         ND         ND         ND         ND         ND         ND           Toluene         ND		ND			
Trans 2-Hexene		ND			
Toluene	Trans 2-Hexene				
Toluene					
Ethyl Benzene         ND         ND         ND         ND           M-xylene         ND         ND         ND         ND         ND           0-xylene         ND         ND         ND         ND         ND         ND           0-uene         ND         ND </td <td></td> <td></td> <td></td> <td></td> <td></td>					
Ethyl Benzene         ND         ND         ND         ND           M-xylene         ND         ND         ND         ND         ND           0-xylene         ND         ND         ND         ND         ND           P-xylene         ND         ND         ND         ND         ND           Cumene         ND         ND         ND         ND         ND           1,2,4-Trimethyl Benzene         ND         ND         ND         ND         ND           P-cymene         ND         ND         ND         ND         ND         ND           Chlorobenzene         ND         ND         ND         ND         ND         ND           M-dichlorobenzene         ND         ND         ND         ND         ND	Ethylene Di Bromide				
M-xylene         ND         ND         ND           0-xylene         ND         ND         ND         ND           P-xylene         ND         ND         ND         ND           Cumene         ND         ND         ND         ND           1,2,4-Trimethyl Benzene         ND         ND         ND         ND           P-cymene         ND         ND         ND         ND           P-cymene         ND         ND         ND         ND           Chlorobenzene         ND         ND         ND         ND           M-dichlorobenzene         ND         ND         ND         ND           O-dichlorobenzene         ND         ND         ND         ND           ND         ND         ND         ND         ND           Methyl Ethyl Ketone         ND         ND         ND         ND           Methyl Ethyl Ketone         ND         ND         ND         ND           Bromodichloromethane         ND         ND         ND         ND           Bromodichloromethane         ND         ND         ND         ND           Carbon Tetrachloride         ND         ND         ND					
P-xylene ND					
P-xylene         ND         ND         ND           Cumene         ND         ND         ND         ND           1,2,4-Trimethyl Benzene         ND         ND         ND         ND           P-cymene         ND         ND         ND         ND           Chlorobenzene         ND         ND         ND         ND           M-dichlorobenzene         ND         ND         ND         ND           M-dichlorobenzene         ND         ND         ND         ND           P-dichlorobenzene         ND         ND         ND         ND           Methyl Ethyl Ketone         ND         ND         ND         ND           Methyl Ethyl Ketone         ND         ND         ND         ND           Acetone         ND         ND         ND         ND           Bromodichloromethane         ND         ND         ND         ND           Bromoform         ND         ND         ND         ND           Bromoform         ND         ND         ND         ND           Dibromochloromethane         ND         ND         ND         ND           Trans 1,2-Dichloroethane         ND         ND	0-xylene				
1,2,4-Trimethyl Benzene ND					
P-cymene ND					
Chlorobenzene         ND         ND         ND         ND           M-dichlorobenzene         ND         ND <t< td=""><td>1,2,4-Trimethyl Be<b>nzene</b></td><td></td><td></td><td></td><td></td></t<>	1,2,4-Trimethyl Be <b>nzene</b>				
M-dichlorobenzene ND	P-cymene				
O-dichlorobenzene         ND         ND         ND         ND           P-dichlorobenzene         ND					
P-dichlorobenzene         ND         ND         ND         ND           Methyl Ethyl Ketone         ND	M-dichlorobenzene				
Methyl Ethyl Ketone         ND         ND         ND         ND           Acetone         ND         ND         ND         ND         ND           Bromodichloromethane         ND         ND         ND         ND         ND           Bromoform         ND         ND         ND         ND         ND         ND           Carbon Tetrachloride         ND         ND         ND         ND         ND         ND           Dibromochloromethane         ND         ND         ND         ND         ND         ND           1,2-Dichloroethane         ND         ND         ND         ND         ND         ND           1rans 1,2-Dichloroethane         ND         ND         ND         ND         ND         ND           1rans 1,2-Dichloroethylene         ND         ND         ND         ND         ND         ND           1rans 1,2-Dichloroethylene         ND         ND         ND         ND         ND         ND		**			
Acetone					
### Bromodichloromethane					
Bromoform         ND         ND         ND         ND           Carbon Tetrachloride         ND         ND         ND         ND           Dibromochloromethane         ND         ND         ND         ND           1,2-Dichloroethane         ND         ND         ND         ND           1,2-Dichloroethane         ND         ND         ND         ND           1rans 1,2-Dichloroethylene         ND         ND         ND         ND           1rans 1,2-Dichloroethylene         ND         ND         ND         ND           ND         ND         ND         ND         ND	Acetone				
Carbon Tetrachloride         ND         ND         ND         ND           Dibromochloromethane         ND         ND         ND         ND           1,2-Dichloroethane         ND         ND         ND         ND           1rans 1,2-Dichloroethane         ND         ND         ND         ND           1rans 1,2-Dichloroethylene         ND         ND         ND         ND           ND         ND         ND         ND         ND					
Dibromochloromethane ND					
1,2-Dichloroethane         ND         ND         ND           1,2-Dichloroethane         ND         ND         ND           1 rans 1,2-Dichloroethylene         ND         ND         ND           1 rans 1,2-Dichloroethylene         ND         ND         ND           ND         ND         ND         ND           ND         ND         ND         ND	Carbon Tetrachloride				
Trans 1 2-Dichloroethane ND					
Trans 1.2-Dichloroethylene ND	1,2-Dichloroethane				
ND ND ND ND ND	Trans 1,2-Dichloroethane	-			
to the opinion					
girennegati <b>jehe</b> William Milliam Co. William	t i jarne <mark>ropropane</mark> Strappropulehe	170	₩0 ₩()	110	NO

#### HAXIMAN ALLOHABLE CONTAINANT CONCENTRATIONS





Health Protection Levels

\* Health Protection Levels are not to be exceeded, during operational life of remedial action in effluents from groundwater treatment systems. Permanent reduction of contaminant concentrations below these levels throughout the site will indicate completion of the remedial action.

	NOTE	•		
	FOR IDONID'ICATION OF VILLS		Haximum Concentration	
		Contaminant	parts per billion (ug/1)	Basis
عددوا المحددة المحادثة	10276 1 10276 1 11m	***************************************		
	2 2000 00 3 3			
	4 19 2 2 19 19	1,1,1-Trichloroethan	ne (TCA) 200.0	HCL
X/. Y/ !!		1.1-Dichloroethylene	(DCE) 7.0	HCL
1032		1,1-Dichloroethane	(DCA) 4050.0	HAC .
		Trichloroethylene	(TCE) 5.0	HCL .
	RUSSEL RE	TetrachToroethylene	(PCE or TETRA CL) 0.7	10 -8 cancer risk
i		Hethylene Chloride	(HC) 2.5	10 -8 cancer risk
1000 - 1000 - 1 000 m		Marie III	•	
177		THE !	***************************************	
1 1 /0 10	1 1 2 3 1 4 2 1 1 1	1/1/2	10/19/90 #34085-90 WELL # 111-TCA 11-DCE	
		111	(b) (6) 02730-2 NO NO	NO NO NO NO
, , , , , , , , , , , , , , , , , , ,		30	0373A-2 NO NO 0273E-2 NO NO	ND ND ND
15575H 16373F 15-37914G	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	730 02734	0273P-3 102 MD	NO NO NO NO
1 / 1 /2/11	V/////2cb-4/2	1442		j j
1 / / / / / / /	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1. 1		
10733 1073C 10783	PC7-1/1/1/1	1A ) 20		
	1073/ 117 12 HEADOVS 1173C 1173C	N 100	SHALLOW	1
عبلية ((( \ \ الأما / ا	11 11 11 11	. 1004	**************************************	I-DCA TGE TETRACL CHLOROFORM
1. / / 1) /- = //4	CD-651	1 7	ANIAL STATES	
1013	1073H	26 Zag 1173H		
( X 1 X 1761	\  1   1   1   1   1   1   1   1   1	1	•	
1 2 10 1 X	B=1	1 / / 1		
# 10 12	251			
10734 a 10734 10 10734	10737 1072M 1070M 107	× 11731	DEEP	
			(h) (6) #34085-90 WELL # 111-TCA 11-0CE	11-DCA TCE TETRACL CHLOROFORM
/ Pa- (( ^1 ,	a	1	(b) (6) 1073E-2 40 MD 1073E-3 ND MD	NO NO NO NO
A 12 12 1 1		,	1173H-1 NO NO	ND ND ND ND
1073N 1073F \ 1073C	a 2 1073R 1 173M 1 1/1230 1 1127	11728	1573C-14 ND ND	ND NO NO
( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1	NAVE: RE	1		
10730 10790 10730				
HONOGO NE PER CO	1 3 1 91 11!			
- 2 116774 11573B / 31 J 1 16173C 15732	24 54738 1473C (1147	23 1/(473A	10/19/90 #34086-90 WELL # 111-TCA 11-DCE	11-DCA TCE TETRACL CHLOROFORM
SALE SALES	MODELARD CT.		(b) (6) 1473C-2 NO NO	MD ND ND ND
5/ / 10 25 30	1 1 1 1 1 1	1100	1473C-4 ND ND	MD ND ND HD
24 2 VX ( 14 24 0 14 0		1/ 1.		
15734 15736 15736 15736	14735 34735 143	36 147341		
X 1 ( to ) 24   PORTING ITS	14736 14736 147		BHALLOW	11-DCA TCE TETRACL CHLOROFORM
1 1 2 2 1 .	1 2 2 1	11 /	(b) (6) 1573C- 7 MD MD	NO NO NO NO
1 XETA	1 2 2	11 (1	13/31-1 80 80	NO NO NO
			1473H-1 8 NO	MD ND ND ND
115734   115734   115732   115732	15734 1, 14732	1473		
1 1		· · · · · · · · · · · · · · · · · · ·		
7 104		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
15794   15794   15794   15795   15795			10/19/90 53/055-00 9511 5 444 704 44 444	
16758 }	1 14734 14734 14734 114734	00 (1473)	(b) 1573E-1 NO NO	ND NO ND ND
. \	• 11 - 12   /	11	(D)	)
	N sus			
1777 29734 1 22750 122750	1	Tii		
2777 22736 4 22736 22739	E3738 12573C 1E5	EJ73A		
1 / /~~,		////	SHALLOW	, , , , , , , , , , , , , , , , , , , ,
1/1	1   1   1   1   1   1   1   1   1   1	ii	10/19/90 #34086-90 WELL # 111-TCA 11-DCE	11-DCA TCE TETRACL CHLOROFORM
	18/18	di:	- (h) (6) 23730-1 NO NO	ND ND ND ND
22736	22734 2778 2778 2778 2778	Date of London		Ç.
	1 1 2 2 1	111 11		
$\rightarrow (1)$	X	1 1 1		
	AT AA.			
2273M  2273L  2273K	· 1 22734 1 23734 23	אליר בענים - איני		
1 1 1	#/	1		
	# #			
i				
22734   Z273F       E273Q	12)36	23/56		
1	(a)   #	1		
	- 11// II !	1 1		
1				